

LASER DIODE CONTROL CIRCUIT

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Abstract of JP60021585

PURPOSE: To improve the reliability of a device incorporating the laser diode by enabling the long time use of the laser diode by a method wherein an adding circuit is added and then controlled so as not to let overcurrent flow.

CONSTITUTION: A resistor 24 is connected to the (-) input terminal of the amplifier 6 of the conventional titled circuit, and the input terminal 25 of the adding circuit is provided with a voltage source which can be turned ON/OFF. In the case of no emission of laser beams, the terminal 25 is supplied with a voltage larger than the output of an amplifier 3 generated by the incidence of a laser beam to the photo diode 1; at the same time, when a sample hold circuit 8 is put in the state of sampling by turning a switching signal 23 H and a control terminal 22 L, the output V6 of the amplifier 6 comes to the relation $V_6 > V_z$ (Reference voltage). Accordingly, the output of an amplifier 12 comes to a value close to -V and then turns a transistor 18 OFF. After the state of no emission of laser beams, the output of the amplifier 12 decreases; therefore the overcurrent does not flow to the laser diode 17 even when a transistor 20 is turned L.

